

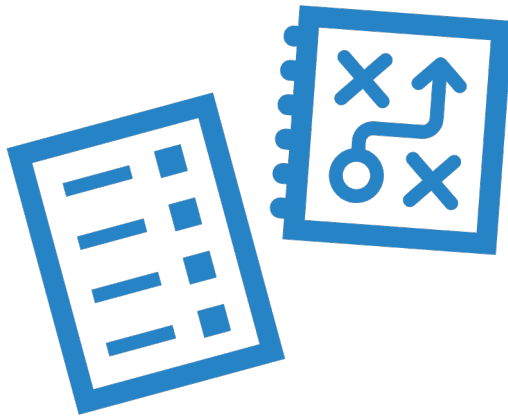


**unesco**

Intergovernmental  
Oceanographic  
Commission

Sub-Commission for the Caribbean  
and Adjacent Regions

Subcomisión para el Caribe y  
Regiones Adyacentes



**OCTOBER 2024**



@iocUnesco |  
@iocaribeunesco

# IOCARIBE REGIONAL CAPACITY DEVELOPMENT

***Lorna Inniss***

Regional Coordinator  
UNESCO-IOC IOCARIBE

***Elva Escobar***

Coordinator  
Capacity Development Group of Experts  
IOCARIBE Board of Officers

[iocaribe.ioc-unesco.org](http://iocaribe.ioc-unesco.org) | [ioc.unesco.org](http://ioc.unesco.org)

## Launch of the Report on the State of the Climate in Latin America and the Caribbean 2020



### Climate change and food security in Caribbean small island developing states: challenges and strategies

Hania Lincoln Lenderking, Stacy-ann Robinson & Gail Carlson

GEOPHYSICS

### Minimizing Caribbean Tsunami Risk

Christa von Hillebrandt-Andrade

Efforts to understand and respond to tsunami risks in the Caribbean are beginning to bear fruit.

In the past 500 years, more than 75 (tsuna- 500,000 people could be in harm's way along

sciendo.com/locate/ocm on July 7, 2021

### SCIENCE DIPLOMACY AND SUSTAINABLE DEVELOPMENT: PERSPECTIVES FROM LATIN AMERICA

EDITED BY: Milena Serafim, Kleinsy Bonilla, Efraín Bámaca-López and Antonette Castaneda  
PUBLISHED IN: Frontiers in Research Metrics and Analytics

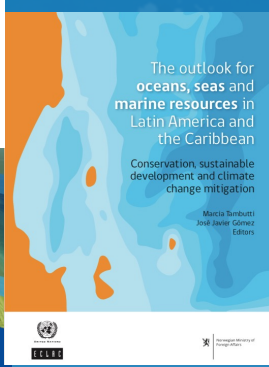


Ocean & Coastal Management 45 (2002) 677-693



### Opportunities and gaps for enabling a Blue Economy in the Caribbean

Dr. Andrés Cisneros-Montemayor  
Research Associate, Institute for the Oceans and Fisheries, UBC  
Deputy Director, Nippon Foundation Ocean Nexus Program



THE UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT  
2021-2030  
WESTERN TROPICAL ATLANTIC  
TROPICAL AMERICAS CO-DESIGN WORKSHOP SERIES  
WORKSHOP SERIES COMPLETION  
SUMMARY REPORT  
WTA- TECHNICAL WORKSHOP SERIES

### From: Development Strategy Assessment of the Eastern Caribbean

Access the complete publication at:  
<https://doi.org/10.1787/1f566c7a-en>

SUPPORTING ACTION IN SMALL ISLAND DEVELOPING STATES (SIDS), LEAST DEVELOPED COUNTRIES (LDCs) AND LAND-LOCKED DEVELOPING COUNTRIES (LLDCs) IN THE OCEAN DECADE  
24 November 2021  
20:00 - 21:30 CET

UN environment programme  
SARGASSUM WHITE PAPER  
Turning the crisis into an opportunity  
2021

frontiers in Research Metrics and Analytics  
POLICY AND PRACTICE REVIEW  
Lulu Maria 12 June 2021  
doi:10.3389/fres.2021.687273

### Ocean Science Diplomacy can Be a Game Changer to Promote the Access to Marine Technology in Latin America and the Caribbean

frontiers in Marine Science  
ORIGINAL RESEARCH  
published: 22 April 2021  
doi:10.3389/fmars.2021.687273

Environmental Development  
journal homepage: www.elsevier.com/locate/develop

### Challenges to Implementing Regional Ocean Governance in the Wider Caribbean Region

Lucia Fanning\*, Robin Mahon\*, Sanya Compton\*, Chris Coakley\*, Patrick Debeles\*, Milton Haughton\*, Sherry Heikeman\*, Nicole Leotaud\*, Patrick McConney\*, Manuel Perez Moreno\*, Terrence Phillips\* and Cesar Toral\*

CHARACTERIZACIÓN MULTIDISCIPLINARIA DE LA ZONA COSTERA DE SISAL, YUCATÁN  
HACIA UNA GESTIÓN INTEGRAL Y FORTALECIMIENTO DE LA RESILIENCIA

GULF AND CARIBBEAN FISHERIES INSTITUTE  
2020  
Science and Research Serving Effective Ocean Governance in the Wider Caribbean Region  
A.A. Adams, Z.A. Quinz, C. J. Miller, M. H. Goff and G. B. G. (Editors) Technical Report No. 02

Sargassum Uses Guide:  
A resource for Caribbean researchers, entrepreneurs and policy makers

### A New Treaty to Protect the High Seas: A Latin American Perspective

Introduction: Linking Ocean Governance in the Caribbean  
Author(s): Nicole Parris  
Source: *Social and Economic Studies*, March 2016, Vol. 65, No. 1, Special Issue: Linking Ocean Governance in the Caribbean (March 2016), pp. 1-6  
Published by: Sir Arthur Lewis Institute of Social and Economic Studies, University of the West Indies

doi:10.1111/socst.12198

## Why is capacity building needed?

- Identify and reduce sources of marine pollution
  - characterize and quantify the pollutants
- Understand, observe and forecast ocean conditions including
  - the effects of climate change
  - ocean-related hazards and their impact on life and livelihoods
- Ensuring sustainable management and protection of
  - renewable resources
  - marine ecosystems and human activities therein
- Capacities and technology to
  - generate, validate, store and access ocean data
  - transform them to information for stakeholders

# WTA CROSS CUTTING PRIORITIES

PRIORIDADES TRANSVERSALES EN LA REGION DEL GRAN CARIBE

- Capacity Development to the forefront
- Desarrollo de capacidades a la vanguardia
  - Implement a coordinated strategy to address regional CD challenges
  - Implementar estrategia coordinada para hacer frente a desafíos regionales en DC
  - Create an inventory of existing, sustained CD efforts
  - Crear un inventario de los esfuerzos existentes y sostenidos de DC
- Establish a robust communication mechanism
- Establecer mecanismo de comunicación sólido
  - Facilitate, foster connectivity, coordinated messaging and higher impact outcomes
  - Facilitar, fomentar conectividad, mensajes coordinados y resultados de mayor impacto
- ECOPs participation and engagement
- Participación y compromiso con ECOP
- Traditional and local knowledge- engage and listen to the ocean
- Involucrar conocimientos tradicionales y locales- escuchar el océano
- Ocean literacy- empowering people, bottom-up approach, national government
- Cultura oceánica- empoderamiento, enfoque de abajo hacia arriba, gobierno nacional
- Private sector- blue economy
- Sector privado- economía azul
  - Large ocean space- islands
  - Islas -grandes espacios oceánicos
  - Continue focus on coastal and marine tourism
  - Enfoque continuo en el turismo costero y marino
  - Bigger role of diversity, fisheries
  - Mayor papel a diversidad, pesca



# WTA ACTION PLAN

## PLAN DE ACCIÓN DEL GRAN CARIBE

- Cross Cutting Actions
- Acciones transversales
- Explicit Implementation actions to
- Acciones explícitas de implementación para
  - Mainstream diversity: youth, gender, geography, local/indigenous communities
  - Incorporar diversidad: generacional, género, geografía, comunidades locales/indígenas
  - Prioritize Capacity Development
  - Priorizar desarrollo de capacidades
  - Timely data access, sharing, use and re-use of data
  - Acceso, intercambio, uso y reutilización oportunos de datos

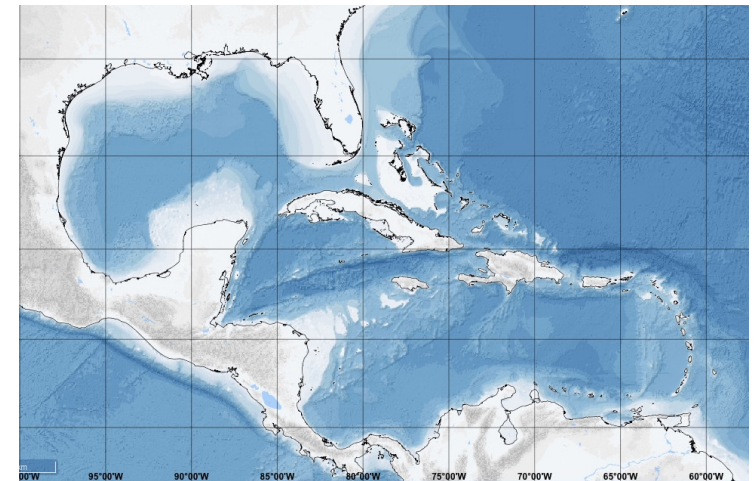
**A. Priority  
transgenerational  
capacity  
building  
challenges**

1. Funding and investment
2. Access to research vessels, infrastructure and equipment
3. Training of technical teams
4. Universal educational blue curriculum
5. Engaging on ocean knowledge with local and indigenous communities
6. Increase job opportunities avoiding or minimizing brain drain

**B. Grand  
challenges**

1. Develop multigenerational ocean expertise and improve skills
2. Access infrastructure and develop ability for equipment maintenance

- 1. What are the related actions undertaken in your region in support of the implementation of the IOC CD Strategy in general?**
- 2. What are lacking actions?**



## IOC CD Strategy Outputs and Activities

Output	Activity	Action	Relevant Programmes/Actions Taken
1. Human resources developed at individual and institutional levels	1.1 Academic and higher education	1.1.1 Promote and assist with the strengthening and establishment of consortia of higher education and research institutions at the appropriate geographical scale	
		1.1.2 Promote collaboration between UNESCO Chairs and IOC, and between IOC and other organisations dealing with ocean matters on human resources development	
	1.2 Continuous professional development	1.2.1 Promote and assist with the organisation of training courses, workshops and “summer schools”, relevant to the IOC mandate, including training of trainers/technicians and executive career development for institutional managers/decision makers, in collaboration with other organisations	Blue Schools SIDS network A New Blue Curriculum Working to increase ocean knowledge among reps of the tourism and fisheries sectors
		1.2.2 Establish, or collaborate with other organisations to develop internship/fellowship and on-board training programmes	
		1.2.3 Establish and collaborate with other organisations on visiting lecturer/scholar/researcher programmes and professional exchanges (peer to peer)	
		1.2.4 Promote and assist with the establishment of regional training (and research) centres relevant to the IOC mandate	
		1.2.5 Promote the development and sharing of training materials and tools	Sargassum and harmful algal blooms, Coastal Hazard Early Warning Systems, Marine Spatial Planning Seven early endorsed regional projects
	1.3 Sharing of knowledge and expertise including through community building	1.3.1 Establish a travel grant “fund”	
		1.3.2 Establish or collaborate with other organisations on a mentoring programme	
		1.3.3 Promote and assist with the development and strengthening of IOC alumni networks, and professional networks including for youth leaders	
		1.3.4 Promote funding, grant and scholarship programs to facilitate ocean research, technical development and scientific exchange through bringing visibility of opportunities via an online CD hub	



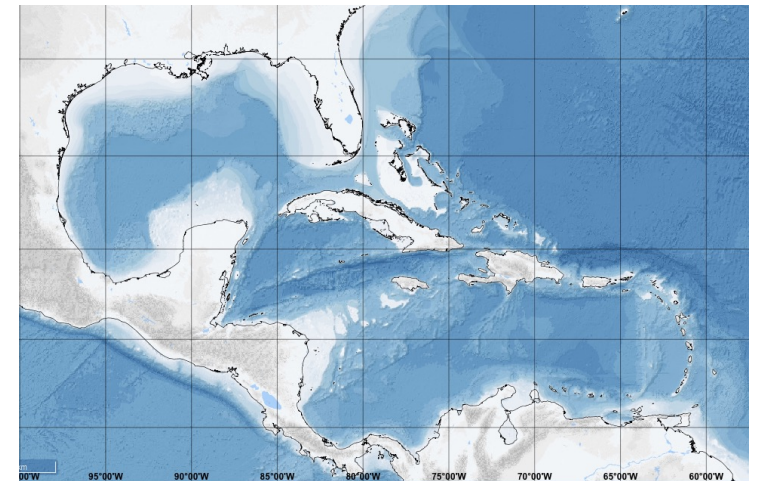
# IOC CD Strategy Outputs and Activities

Output	Activity	Action	Relevant Programmes/Actions Taken
1. Human resources developed at individual and institutional levels	1.4 Integration of ocean science in basic education	1.4.1 Promote the integration of ocean science in curricula of primary and secondary schools	Local /National efforts in Promote participation of women in ocean research  Local/National: through the national Academies of Sciences: the L'Oréal-UNESCO For Women in Science promoted
		1.4.2 Promote careers in ocean research and ocean management	
	1.5 Improving gender, generational and geographic diversity	1.5.1 Promote participation of women in ocean research	
		1.5.2 Promote and support “young scientist” and “women in science” awards	
2. Access to technology, physical infrastructure, data and information established or improved	2.1 Facilitating access to technology and infrastructure	2.1.1 Establish and maintain a register of infrastructure to facilitate access, and promote transfer of marine technology	The Research Network of Marine-Coastal Stressors in Latin America and the Caribbean (REMARCO) created in 2018 with the support of IAEA technical cooperation projects  CD vulnerabilities of marine-coastal ecosystems such as chemical and microplastic pollution, harmful algal blooms, eutrophication, ocean acidification and challenges like assessing blue carbon inventories.
		2.1.2 Promote the development of regional collaboration on sustainable scientific infrastructure	
		2.1.3 Promote involvement of citizen science in ocean research	
	2.2 Facilitating equitable access to and sharing of ocean data and information	2.2.1 Promote the development and wide use of regional and global data and information systems	Local/National: FAIR open access ocean data bases
		2.2.2 Promote the sharing of ocean data and information by stakeholders	
3. Global, regional and sub-regional mechanisms strengthened	3.1 Further strengthening and supporting secretariats of regional sub-commissions	3.1.1 Improve staffing of secretariat of regional sub-commissions	Staffing of secretariat of IOCARIBE sub-commission
		3.1.2 Reinforce budgeting of regional sub-commissions	Reinforcement of budgeting of IOCARIBE sub-commission
	3.2 Enhancing effective communication between regional sub-commission secretariats and global programmes as well as other communities of practice (incl. other organisations)	3.2.1 Establish an effective coordination and communication mechanism between the secretariats of the regional sub-commissions and the global programmes	

## IOC CD Strategy Outputs and Activities

Output	Activity	Action	Relevant Programmes/Actions Taken
3. Global, regional and sub-regional mechanisms strengthened	3.3 Identifying specific national and regional capacity development needs through regular needs assessment	3.3.1 Organise and conduct biennial capacity development needs survey	First meeting took place 181024 Review of the CD WG Terms of Reference
	3.4 Encouraging regional and sub-regional organisations to be leaders in, and amplifiers of capacity development	3.4.1 Reinforce engagement of regional and sub-regional organisations in consultation process and capacity development initiatives	
4. Development of ocean research policies in support of sustainable development objectives promoted	4.1 Fostering the development of ocean research policies	4.1.1 Compile and compare information on existing ocean research policies, and disseminate to Member States for their use	
		4.1.2 Assist and enable Member States with the development of ocean research policies, making use of the results of 4.1.1	
5. Visibility, awareness and understanding on the roles and values of the ocean and ocean research in relation to human wellbeing and sustainable development increased	5.1 Fostering the development of ocean related public information and communication services	5.1.1 Encourage the development of public information (communication) departments in ocean research institutions	Local /National: creation of Ocean Literacy initiatives and review of plans by UN Ocean Decade committees REALCO Latin American Ocean Literacy network
	5.2 Fostering the development of ocean literacy	5.2.1 Assist with the strengthening and development of ocean literacy programmes at national and regional levels	
6. Sustained resource mobilization reinforced	6.1 Enhancing sustained support (in-kind and financial) to the IOC for its international coordination role	6.1.1 Foster partnerships to increase in-kind support opportunities	IOCARIBE Secretariat first advance to foster partnerships to increase in-kind support opportunities
	6.2 Promoting sustained bilateral and multilateral support among Member States	6.2.1 Encourage resource mobilisation in particular from Member States, and other donors to support the outcomes of the IOC Capacity Development needs assessment	

### 3. What specific support can IOC global programmes provide to help address your regional CD needs and requirements?



Specific  
support from  
the IOC global  
ocean  
programs  
(1/2)

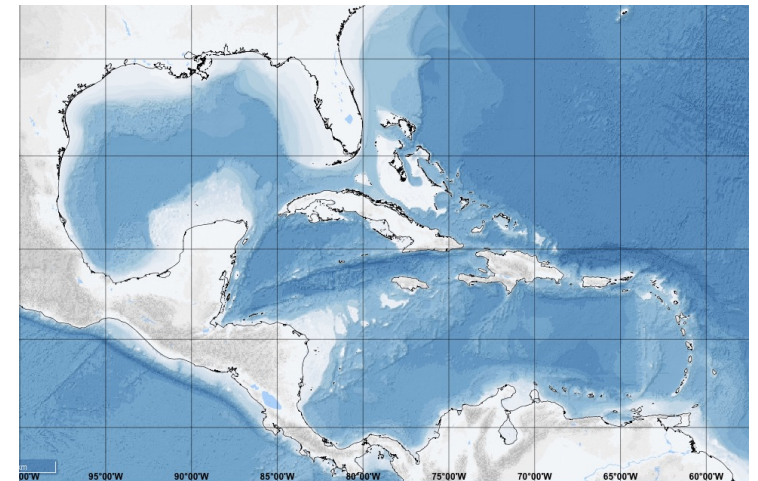
- Biodiversity and skills to assess change
  - Marine Life 2030, OBON, Ocean Census
  - The study of eDNA, the Ocean Biodiversity Information System
- To assess effects of Climate Change and changes in C storage
  - Decreasing Oxygen in the Ocean, the Ocean Acidification, Blue Carbon programs
- Early warning system to prevent human losses in coastal ocean
  - The Global Tsunami Warning System, the Harmful Algal Bloom Program
- Evaluate and manage multiple activities at sea
  - The Managing the ocean and coasts: Marine Spatial Planning program
- Improve education at all levels
  - The Ocean Teacher Global Academy and the Ocean Literacy
- To establish a scientific basis for enhancing relationship between people and their environments
  - The UNESCO World Heritage Marine Sites and has Underwater cultural Heritage, Ocean's intangible cultural heritage and Biosphere Reserves

Specific  
support from  
the IOC global  
ocean  
programs 2/2

- To develop skills, contribute to better metrics and improve the forecasting capacities to
  - adapt to climate change
  - biodiversity loss
  - create carbon markets
  - build sustainable ocean economies
- Programs that can regionally support early-career researchers from developing countries, indigenous communities, and under-represented minorities
  - Global Ocean Observing System
  - the Ocean Mapping General Bathymetric Chart of the Ocean
  - Data and Information programs
  
  - Foresea
  - CoastPredict
  - DITTO
  - Ocean Observing Co-design
  - Ocean Best Practices

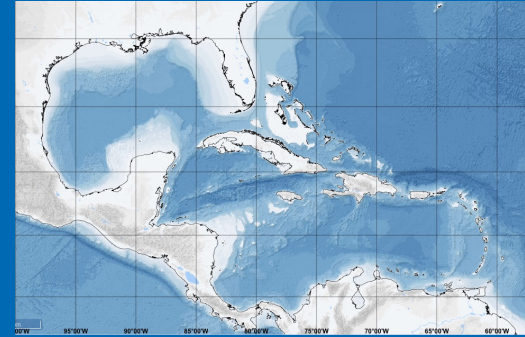


## 4. What potential areas of collaboration with what specific partner organizations are possible to contribute to the specific CD needs and requirements in the region?



Collaboration  
and  
Partners

- Capacity building at sea and ship time
  - financial support for ongoing programs
- Join global networks to
  - observe and develop strong deep-sea science, policy and planning
  - in ABNJ and EEZ
- Specific partner organizations collaborating
  - POGO, NASEM GRP UGOS, NOAA, Geo BON Blue Planet
- International communities, governments, industry, research institutions and philanthropy financing



**THANK YOU**  
**MUCHAS GRACIAS**  
**MERCI BEAUCOUP**

